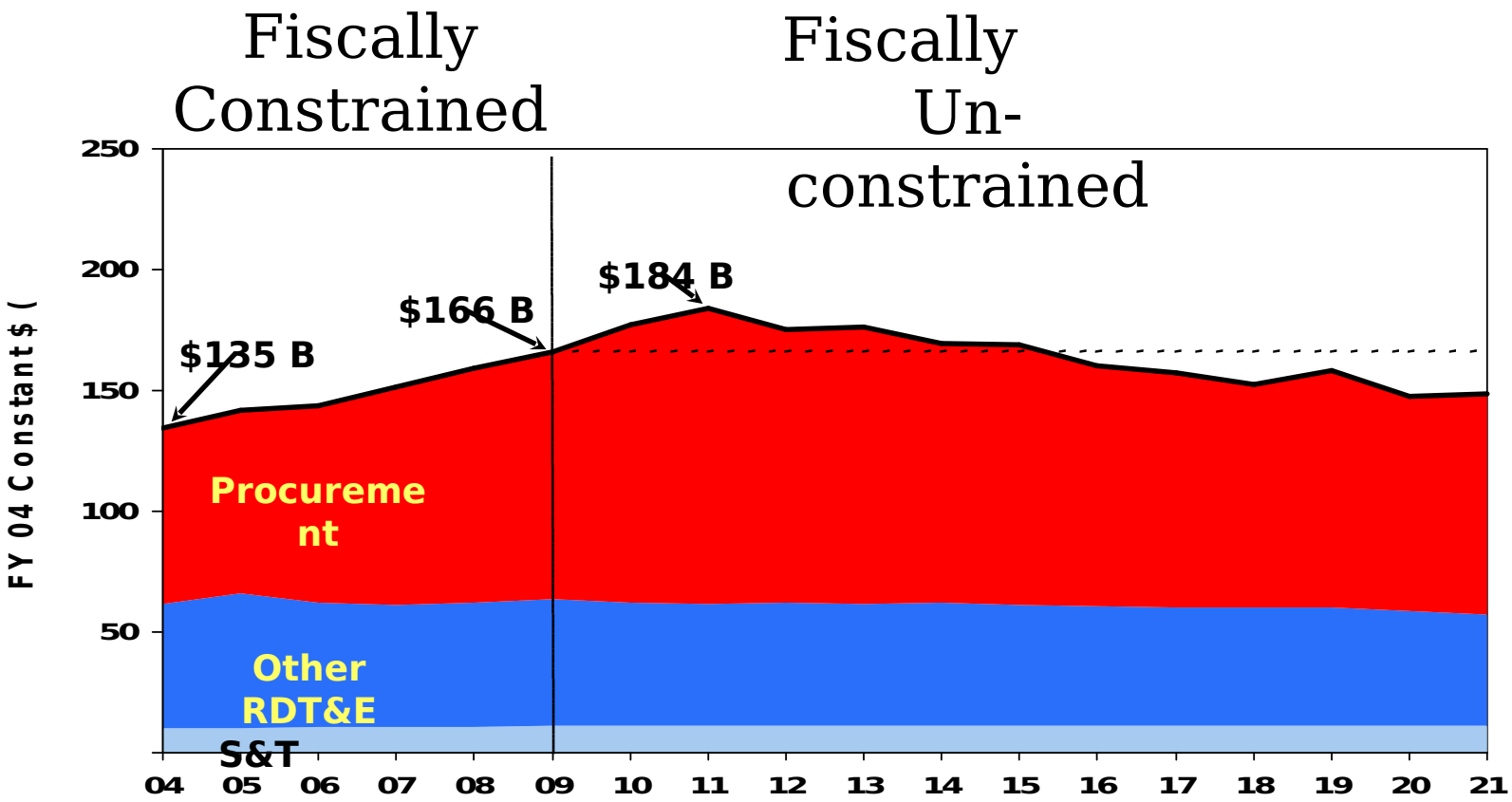
Challenges for Munitions Programs

- Affordability (inside FYDP and beyond)
- Gaps and Redundancies between systems & services may force trade-offs between and across services
- Schedule risks – aging systems vs. new programs
- Recent usage suggests that inventory requirements for some munitions are significantly higher than needed to support future demand
- Emergence of Precision Guided Munitions will impact force structure and logistical support requirements – Crusader decision as an example

Affordability is a challenge…



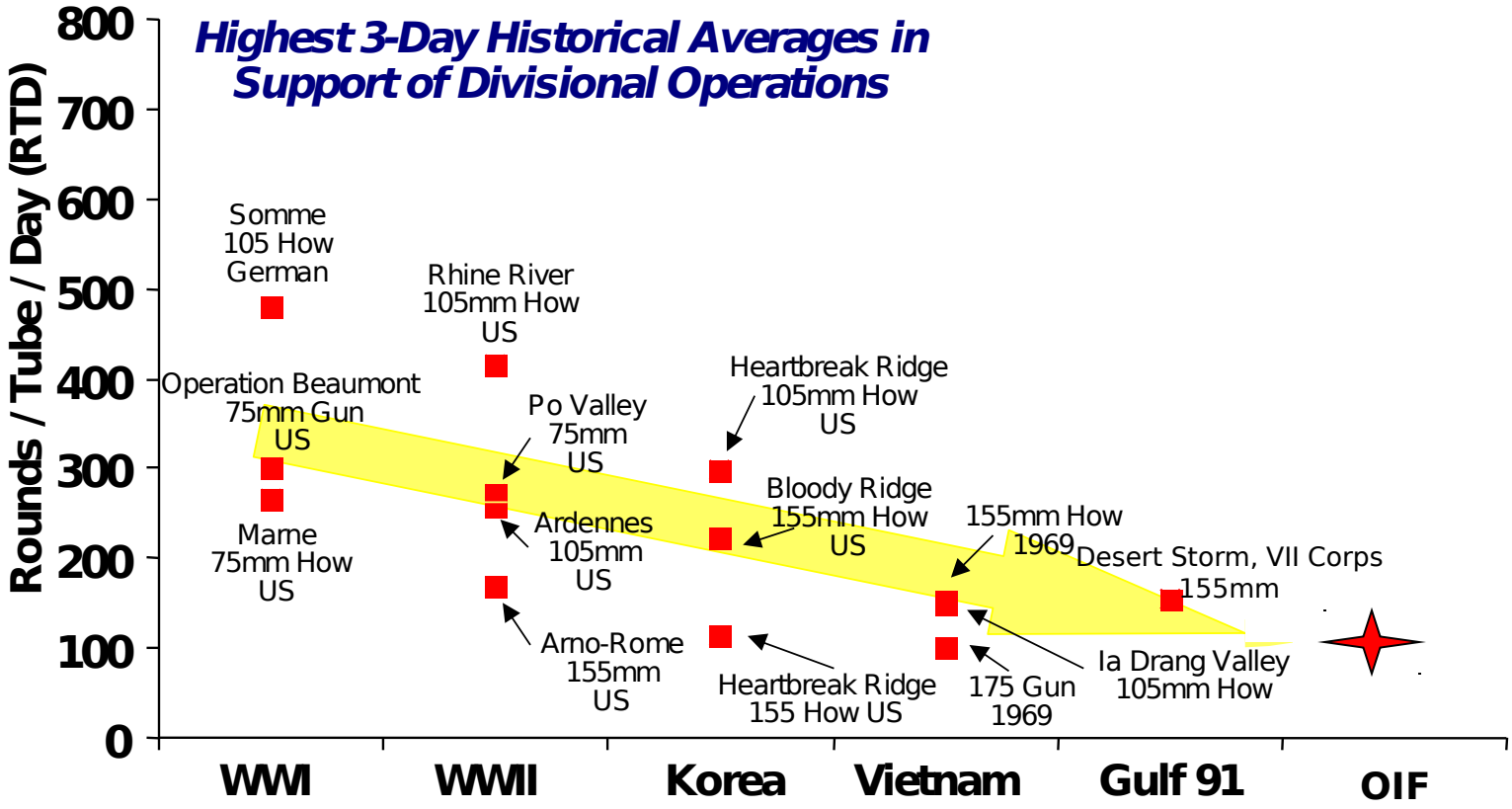
Demands for Investment Resources continue to exceed availa

Some OIF Ammunition Usage

- Air Delivered Munitions
  - 911 Army Hellfire Missiles
  - 580 Navy Hellfire Missiles
  - 114 Navy Maverick Missiles
  - 777 USMC TOW Missiles
  - 4,620 2.75” Rockets
- Surface-to-Surface Munitions
  - 857 MLRS rounds
  - 14,500 155mm artillery rounds

Historical U.S. Fire Rates

Requirements for high-volume tube-delivered fires are decreasing



Army's AHART Study (6/87) concluded that field artillery simulations diverge significantly from historical experience.

Some Emerging Lessons from OIF

- Non-precision munitions still have a role – but need more accuracy and less volume
- Area delivered munitions problematic
  - High dud rates with cluster munitions vs. unitary warheads
  - Artillery round precision & collateral damage
- Tacair delivered munitions
  - Generally responsive
  - Can respond “above the weather”
  - Ground controller interface still a challenge (especially across services)
  - Counter-fire best handled by artillery systems
- Continued effort needed to improve responsiveness of precision fires
- Improvements to Battle-Damage Assessment needed